

REVISED MOTION BY SUPERVISOR MARK RIDLEY-THOMAS

JUNE 8, 2016

Enabling the County to Explore Voice over Internet Protocol (VoIP) Software and Hardware Solutions

On February 6, 2007 the Los Angeles County (County) Board of Supervisors (Board) approved a recommendation by the Chief Information Officer (CIO) to approve a Voice over Internet Protocol (VoIP) technology as the standard technology for new telephone systems in the County, adopt Cisco Systems' (Cisco) VoIP solution as the standard telephone system where a premise-based telephone system is required, and authorize the CIO to review and approve exemptions to the standards.

At that time, the CIO reported that there were no existing industry interoperability standards for VoIP systems that supported full feature compatibility for each manufacturer's product. The CIO stated that each manufacturer had implemented its own proprietary VoIP system and therefore no two manufacturers' systems would directly interoperate. In September 2000, the Institute of Electrical and Electronics Engineers (IEEE) recognized the need for a standardized way of representing the physical network connections pertaining to a given management domain and the importance of a requirement for a standardized

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mechanism to recognize connected devices in order to increase the likelihood of multi-vendor interoperability. Ultimately, IEEE developed a “vendor neutral” protocol called Link Layer Discovery Protocol (LLDP) which was modeled on and borrowed concepts from numerous vendor proprietary device discovery protocols including Cisco Discovery Protocol and Extreme Discovery Protocol. LLDP was officially adopted as an IEEE standard in May of 2005 (IEEE Std 802.1AB-2005).

In addition, the International Telecommunication Union began developing standard recommendations in 1996 that included the H.323 standard to define the protocols for video and voice communications. H.323 is now globally recognized as a standard for VoIP communications. Concurrently, other video and voice protocols including Session Initiation Protocol and Media Gateway Control Protocol were developed, implemented, and adopted globally by VoIP systems.

Since the Board’s actions in 2007, industry standards and functionality have evolved to allow and encourage interoperability of systems from different vendors. As such, it is important that the County continuously explore new technologies to enhance networking, video, and voice communications. There are a range of options in the marketplace making it unnecessary for the County to limit itself to a proprietary solution or brand. Furthermore, the existence of standardized interoperability protocols should enable the County to diversify its telecommunications and networking solutions by purchasing the most efficient and cost effective products through open and competitive solicitations.

I THEREFORE MOVE THAT THE BOARD OF SUPERVISORS:

1. Direct the Chief Executive Officer (CEO) to sunset the software standard approved by the Board of Supervisors (Board) on February 6, 2007 that requires the use of the Cisco Voice over Internet Protocol (VoIP) solution as the standard telephone system; and
2. ~~Direct the CEO to enable and encourage County departments~~ Encourage County Departments, in consultation with the Internal Services Department, to explore the use of all VoIP solutions as long as they are compliant with the Institute of Electrical and Electronics Engineers' Link Layer Protocol (IEEE 802.1AB) and the International Telecommunication Union Voice over Internet Protocol standards to ensure interoperability with existing and future County VoIP infrastructure.

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